

REMARKS

The claimed invention implements reverse-link power control at a mobile station. A pilot signal is transmitted from the mobile station at a power level controlled by a remote transceiver, e.g., a base station. The mobile station controls the transmission power level of the traffic channel signals transmitted by the mobile station by controlling a power gain relative to the pilot signal transmission power level. In particular, the claimed reverse-link power control requires that the mobile station adjust the power gain of the traffic channel signals responsive to reception quality feedback received for the traffic channel signals from one or more remote transceivers. Notably, the use of reception quality feedback does not interfere with power control signals associated with ongoing inner and outer closed loop power control being carried out for the pilot channel signals.

The pending Office Action rejects claims 1 – 52, of which claims 1, 14, 25, and 39 are independent, under §103 as obvious over Damnjanovic (US2003/0050084) in view of Black (US2003/0050084). The pending obviousness rejection fails, however, for at least two reasons. Notably, Black and Damnjanovic, taken alone or in combination, fail to disclose the claimed reception quality feedback or power gain adjustment. Further, there is no motivation to combine Black with Damnjanovic.

In rejecting the independent claims, the examiner concedes that Damnjanovic does not disclose the claim limitations related to reception quality feedback, but asserts that Black solves this deficiency. However, while Black uses the term “feedback,” Black’s feedback is explicitly defined as a power control command transmitted from the base station to a mobile station (col. 4, ll. 3-19). Further, Black explicitly states that the power control commands are generated at the base station based on the power of a signal received from the subscriber station as measured at the base station. Thus, not only does Black fail to teach power control based on signal quality, but Black also fails to teach that the mobile station adjusts its transmission power

based on any type of reception quality feedback received from a base station. Because Black's power control commands do not constitute reception quality feedback, Black fails to solve the deficiencies of Damnjanovic.

Further, while Damnjanovic describes reverse/uplink power control, contrary to the examiner's assertions Damnjanovic does not disclose adjusting the power gain of traffic channel signals relative to pilot or other control channel signals. Instead, Damnjanovic describes that power control commands from a serving base station exclusively control the transmission power of the reverse link rate control channel during handoff, while power control commands from non-serving base stations control the transmission power of the reverse link traffic channel during handoff. Such separate control channel and traffic channel power control cannot be construed as equivalent to adjusting the power gain of a traffic channel signal relative to a control channel signal, much less adjusting the power gain responsive to receiving reception quality feedback, as required by the independent claims

Because Black and Damnjanovic both fail to teach or suggest adjusting a power gain of a traffic channel signal at the mobile station based on the reception quality feedback received at the mobile station, as required by the independent claims, the combination of Damnjanovic with Black necessarily fails to teach these limitations. For at least this reason, independent claims 1, 14, 25, and 39, and all claims depending therefrom are new and non-obvious over the cited art.

There is also no motivation to combine Black with Damnjanovic. Both Black and Damnjanovic use power control commands transmitted from a base station to a mobile station to control the reverse link power of signals transmitted by the mobile station. Because both references use power control commands to implement closed-loop reverse link power control, it is unclear what benefit is gained by combining Black with Damnjanovic, or what would result from such a combination.

Further, the examiner's proffered motivation is legally insufficient. The examiner states:

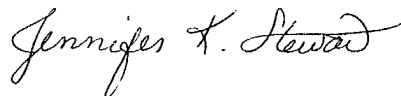
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the teaching of Black et al. for providing the receiving reception quality feedback to the mobile station to the method of Damnjanovic et al. to better control the transmission power of the mobile station in order to achieve a desired signal-to-noise ratio at the base station.

There is no indication that combining Black's reverse link power control with Damnjanovic's reverse link power control will "better" control the transmission power of the mobile station, or that such a combination would help achieve a desired signal-to-noise ratio. Further, there is every indication that Damnjanovic alone provides a reverse link power control system that achieves a desired signal-to-noise ratio at the base station. Thus, the examiner's proffered motivation is conclusory.

For at least these reasons, there is no legally sufficient motivation for combining Black with Damnjanovic. The applicants therefore submit that independent claims 1, 14, 25, and 39 are new and non-obvious over the cited art for this reason as well.

In light of the above remarks, the applicants submit that the pending claims are patentably distinct over the cited art. The applicants therefore request reconsideration of all pending rejections and issuance of a Notice of Allowance. Should any issues remain unresolved, the applicants request that the examiner call the undersigned so that any such issues may be expeditiously resolved.

Respectfully submitted,
COATS & BENNETT, P.L.L.C.



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Jennifer K. Stewart
Registration No.: 53,639

1400 Crescent Green, Suite 300
Cary, NC 27518

Telephone: (919) 854-1844
Facsimile: (919) 854-2084